

PROJECT SHEET

PORTO DE SÃO FRANCISCO DO SUL, SC
DRAGAGEM, DERROCAMENTO

BOSKALIS

Royal Boskalis Westminster is a leading global marine contractor and services provider. With safety as our core value, we offer a wide variety of specialist activities to the oil & gas and renewables sectors. These activities include marine installation and decommissioning, seabed intervention, marine transport and services, subsea services and marine survey. In addition, Boskalis is a global dredging contractor, provides towage and terminal services across the globe and delivers marine salvage solutions.

By understanding what drives our clients we are able to provide the solutions that enable them to meet their specific business goals. For this reason we are constantly looking for new ways to broaden and optimize our offering and are committed to expanding our proposition, supported by our financial strength.

With our committed professionals in engineering, project management and operations, 800 specialized vessels and an unprecedented breadth of activities in 90 countries across six continents we help our clients in the offshore industry push boundaries and create new horizons.

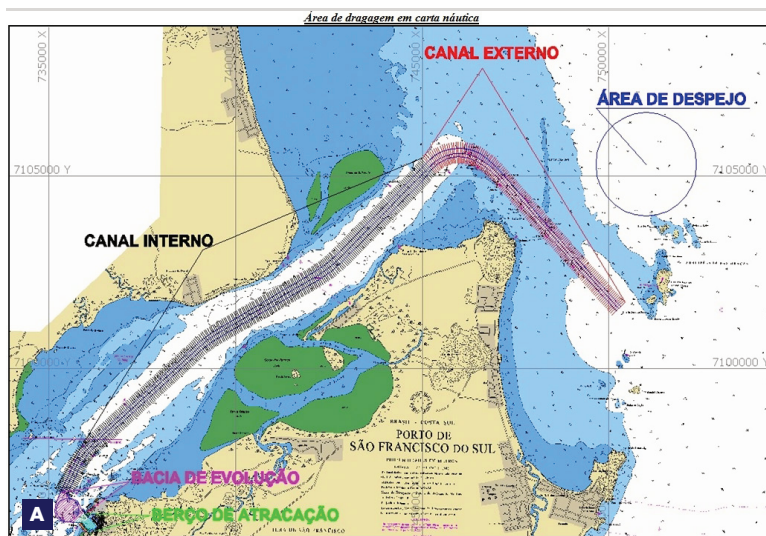
INTRODUCTION

The Port of São Francisco do Sul is an Operational Complex comprised of administrative area, container storage yard, warehouses for general cargo, grain conveyors, shiploaders for grain and for vegetable oil, berths for mooring vessels and vessels, power stations and motorgenerator groups, tanks for storage of fuel oil for the use of automotive vehicles and equipment of port operators. Located 215 kilometers from the state capital of Santa Catarina, on the right bank of the São Francisco do Sul River.

Oporto every year has its demand increased and to meet this need the Special Secretariat of Ports with PAC resources - Growth Acceleration Program hired the VanOord - Boskalis consortium to dredge and overthrow the Port of São Francisco do Sul allowing ships of greater size have access to the port, and can achieve a 30% increase in operating capacity.

FEATURES

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| Client | Secretaria Especial de Portos |
| Location | São Francisco do Sul, SC, Brazil |
| Period | 2010 - 2011 |
| Contractor | Bandeirantes Dragagem e Construção Ltda |
| Sub Contractor | Consórcio Boskalis do Brasil Dragagem e Serviços Marítimos Ltda - Van Oord |



A Port of São Francisco do Sul, with the demarcated dredging areas
B Aerial view of the Port of São Francisco do Sul

PROJECT DESCRIPTION

The dredging project to deepen the waterway accesses of the São Francisco do Sul port was divided into three stages: dredging of the external and internal channel, dredging of the evolution basin and the overthrow of rocks. The work areas are marked in Figure A.



Dredging work began in July 2010. The first stage of the project was the dredging of the 5 km long outer canal, width 160 m and the internal canal with a length of 15 km, a width of 180 to 240 m, totaling a volume of 3.8 million m³, leaving in the quota of 14 m of depth. This entire Project Stage was carried out with the Dredger Autoway Seaway (Figure C), with a tank capacity of 13,000 m³ of material, facilitating dredging work due to its high technology and agility.

The dump site is at 17 nautical miles from the Port, with an approximately 2-hour drive from the dredger to dump the sand and return to the work site.

The execution of the dredging stage of the external and internal channel lasted for 3 months, and the other two stages were carried out in 2011 by Van Oord. The project envisages the widening of the basin of evolution to 615 m in diameter, the deepening in the quota -14 m including the over-throw of stones.

The total dredging volume of the project is 4.3 million cubic meters and 100,000 cubic meters, which will be carried out in a total period of 18 months.



C Dredger Seaway autotransporter